

Scenic Resource Management Classification

INTRODUCTION

Within the NH-AL, three areas have been identified as “Scenic Resource Management Areas”

Area 15: Manitowish River

Area 16: Rustic Road

The scenic resources management classification is applied to lands with outstanding scenic attractions, scenic lakes, rivers and streams with high value for water-based recreation. This classification may be applied to scenic highways, roads, trails or vistas where public use is for the specific use of enjoying the scenery (WDNR 2001).

The management objective of a scenic resources management area is to protect, maintain, and enhance for long-term public enjoyment lands or waters having unique aesthetic qualities or outstanding scenic beauty. Development within the scenic resource management areas will be located and designed to be harmonious with the surrounding landscape and have minimal negative impact upon its scenic values (WDNR 2001).

Vegetation management approaches appropriate for use within scenic resource management areas may vary from passive management to active management, depending upon the long-term scenic management objective for the area and the site’s ecological capability, and vegetation types and site conditions. Examples of potential vegetation management activities that may be prescribed by the master plan include timber harvesting, planting, herbicide application, mowing, burning, flooding, and installation of fish habitat improvement devices, road construction, and erosion control. Additional restoration activities potentially include cutting trees and shrubs to maintain or create scenic vistas, underplanting or replanting (preferably native trees and shrubs) for visual variety or to speed conversion to a scenically desirable forest type and removal of invasive species.

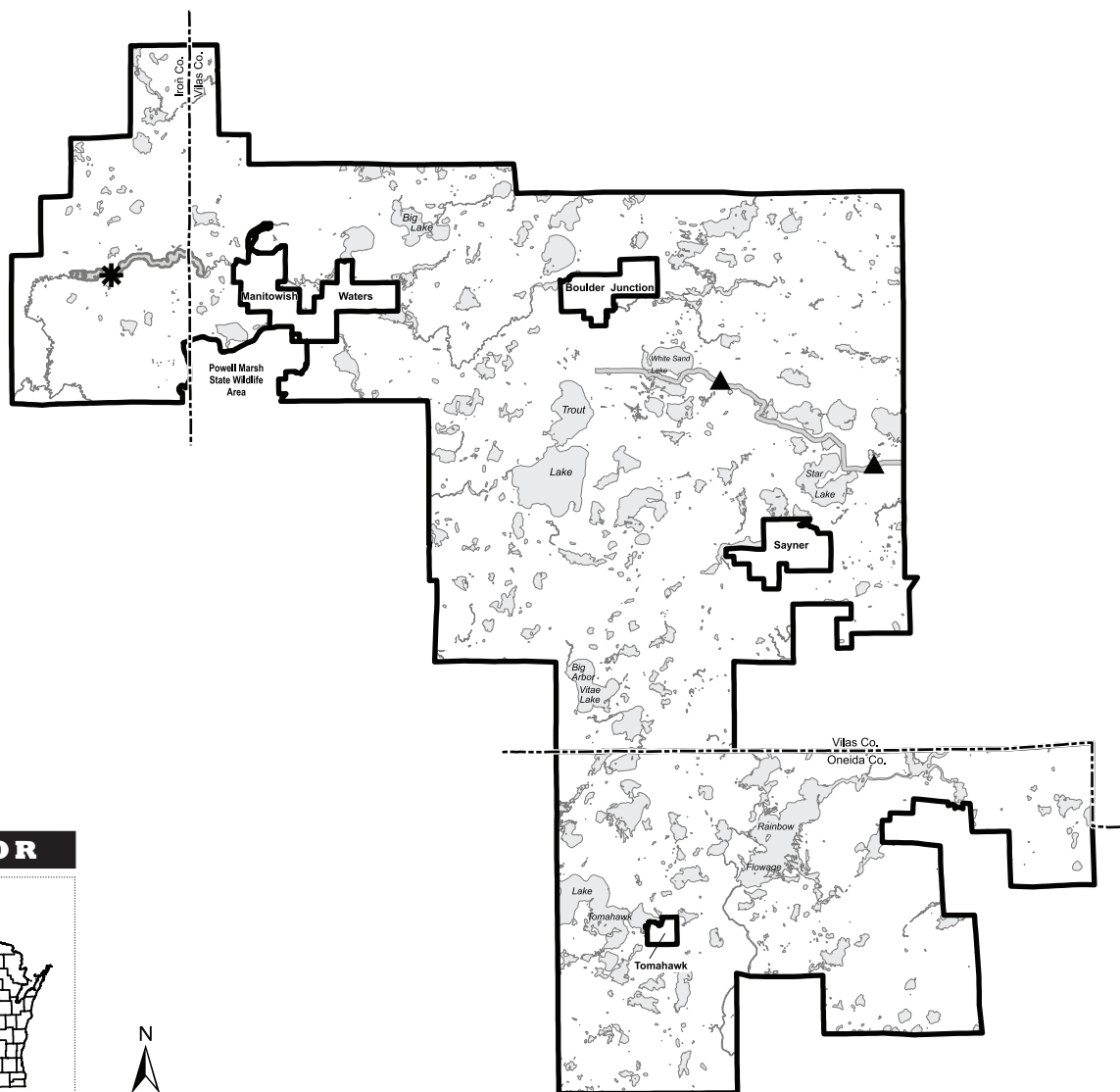


Scenic Resource Management Classification

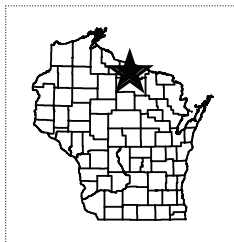
INTRODUCTION

AREAS
15-16

MAP 41: SCENIC MANAGEMENT CLASSIFICATION AREAS



LOCATOR



Feb. 10, 2005

Scale 1:400,000

MAP ## LEGEND

— State Forest Project Boundary

Scenic Management Classification Areas

* Area 15. Manitowish River

▲ Area 16. Rustic Road

□ Other State Forest Management Areas

--- County Boundary

Open Water

The data shown on this map have been obtained from various sources, and are of varying age, reliability and resolution. This map is not an authoritative source of information about legal land ownership or public access.

**AREA
15****Scenic Resource Management Classification****MANITOWISH RIVER**

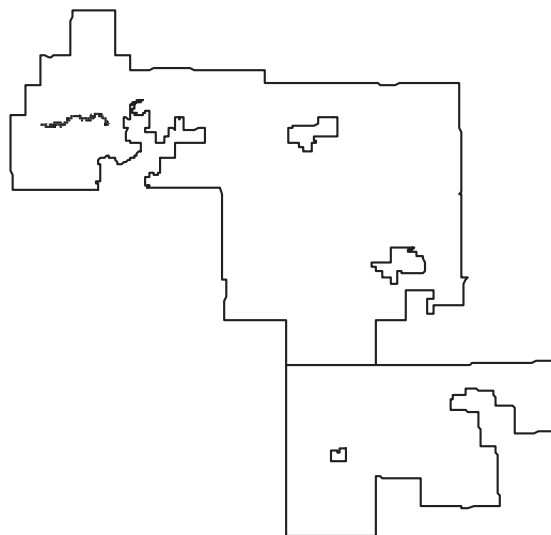
The scenic management area includes the stretch of the Manitowish River corridor from Benson Lake to State Highway 47. The downstream end of the scenic area abuts the Manitowish River Wild Resources Area. The scenic area corridor stretches for 300 feet each side of the river. The topography is mostly level to gently rolling with excessively drained, sandy soils. The river corridor was designated a scenic resource area in the 1982 Master Plan.

Historically the river was a well traveled transportation route and was used extensively for the logging trade at the turn of the century. At European settlement the river was flanked with a mix of wetland forest and high ground red and white pine stands. Presently, the area has a natural look and its undeveloped shore adds to the beauty of the riverway.

This area is classified a Type 3 Recreational use setting.

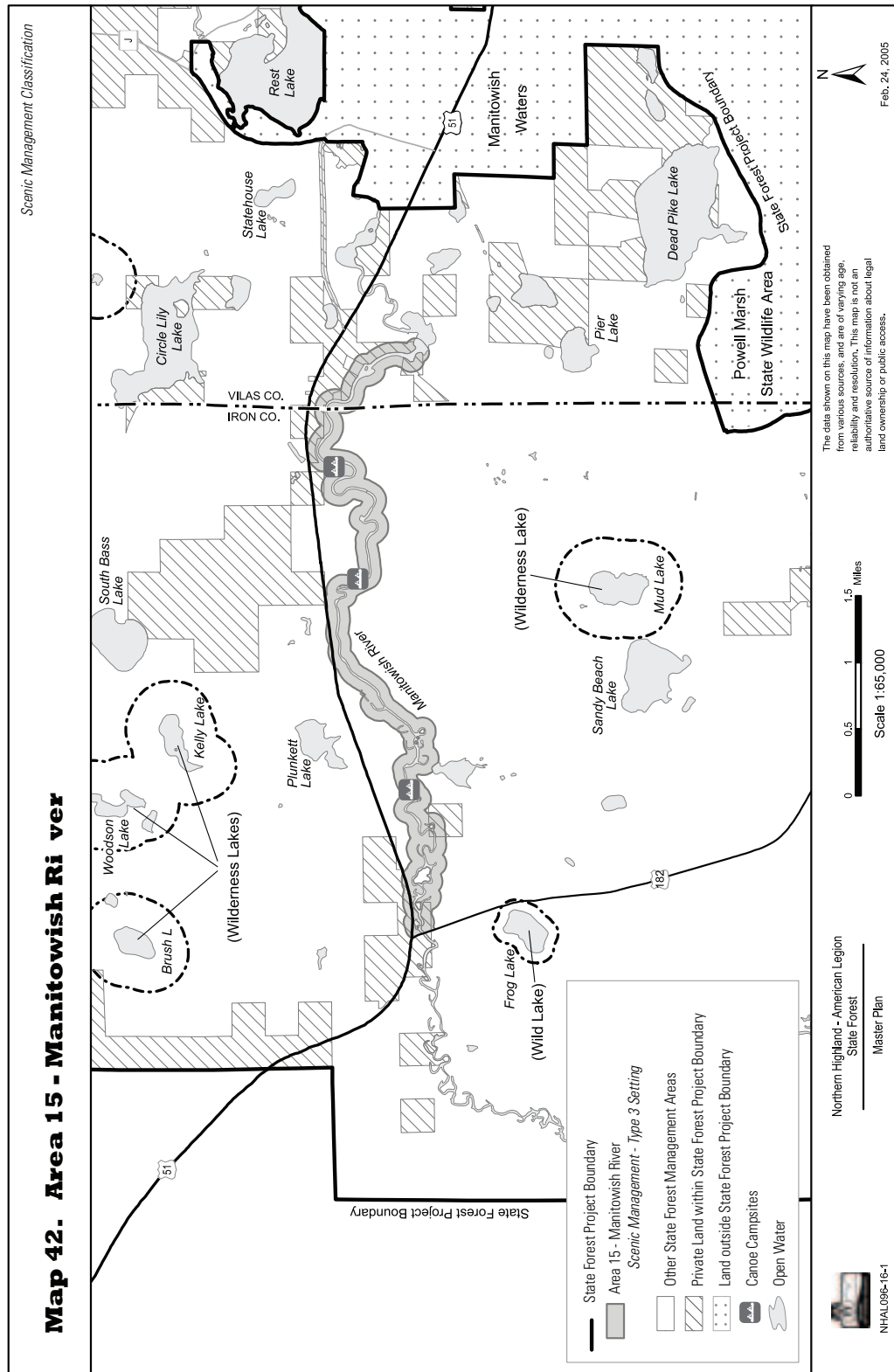
**AREA 15 SUMMARY**

- ▲ This area is approximately 759 acres in size with 524 acres in state ownership.
- ▲ Management to protect, maintain and enhance aesthetic qualities and outstanding recreational opportunities of the Manitowish riverway.
- ▲ Type 3 Recreation Setting

AREA 15 LOCATOR MAP

Scenic Resource Management Classification

MANITOWISH RIVER

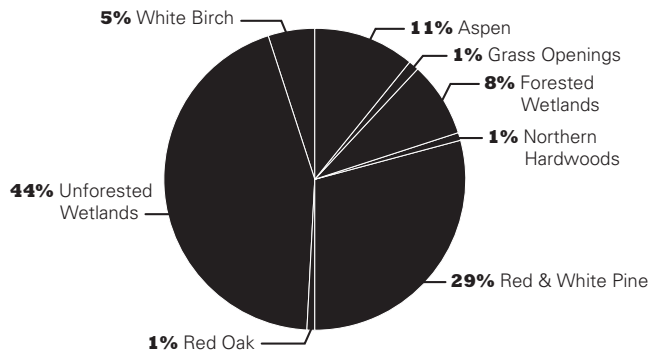
AREA
15

**AREA
15****Scenic Resource Management Classification****MANITOWISH RIVER****LONG-TERM AND SHORT-TERM
OBJECTIVES (100 TO 50 TO YEARS)**

- Maintain and enhance the natural appearing, undeveloped, and highly scenic Manitowish River corridor between Benson Lake to State Highway 47.
- Provide opportunities for high quality, non-motorized recreational and educational in a generally undeveloped river setting. Maintain an undeveloped shoreline, except for primitive canoe campsites, that are harmonious with the surrounding landscape and to have minimal negative impact upon scenic values.

**RESOURCE MANAGEMENT
PRESCRIPTIONS**

- Maintain the corridor in a natural appearing condition. Manage for large longer-lived trees such as red and white pine on suitable sites. If needed, under-plant to increase stocking levels of desirable species. Retain white cedar. Leave abundant snags, dead-downed trees, and downed trees in the river.
- When cutting timber or performing other management activities, modify the standard management prescriptions to minimize to the degree practicable the visibility of management activities from the river.
- Generally, leave natural disturbances to regenerate naturally. Consider salvage when the visual qualities along the river can be enhanced and erosion potential can be mitigated. Plant following salvage if the desired natural regeneration would not occur.
- Removal or control of invasive species.
- Locate any new canoe campsites where they will be harmonious with the landscape. Remove hazard trees from campsites. Plant native trees and shrubs as need for shade and screening.
- Other management activities that may be conducted as needed include timber harvesting (except for clear-cutting not related to salvage) and other tree cutting, passive forest management, tree and shrub planting, herbicide application, burning, installation of fish habitat improvement devices, trail or road construction, and erosion control, campsite maintenance and construction, and the removal of hazard trees in public use areas.

AREA 15 CURRENT LAND COVER

Scenic Resource Management Classification

MANITOWISH RIVER

**AREA
15**

**AREA
16****Scenic Resource Management Classification****RUSTIC ROAD**

There is one rustic road designated within the Northern Highland-American Legion State Forest. This road, also known as Rustic Road 60, follows the eastern portion of County Highway K located in Vilas County in the northeastern section of the forest between County Highway N and County Highway M. An additional 2 miles of County Highway K extending to the eastern edge of the NH-AL forest boundary will also be included and managed as a scenic resource. The rustic road is approximately 12 miles in length and 200 feet on each side of the road beginning at the County Highway Right-of-Way. The County Highway Right-of-Way is 33 feet on each side from the center of the road. The road right-of-way is managed by the Vilas County, not the Department.

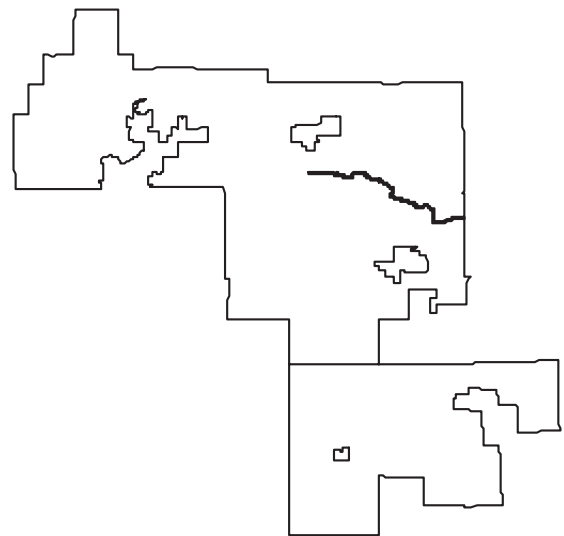
The topography is mostly level to gently rolling. The Rustic Road is of special importance because it travels through heavily forested areas, near hiking trails, and past an old logging camp. It supports a high traffic load and offers travelers scenic vistas of numerous lakes and forests. (DOT 2002).

According to State Statute 83.42 the purpose of a rustic road is "...to create and preserve rustic and scenic roads for vehicular, bicycle, electric personal assistive mobility device, and pedestrian travel in unhurried, quiet and leisurely enjoyment; to protect and preserve recreational driving, culture, beauty, trees, vegetation and wildlife.

This area is classified as a Type 3 Recreation Setting.

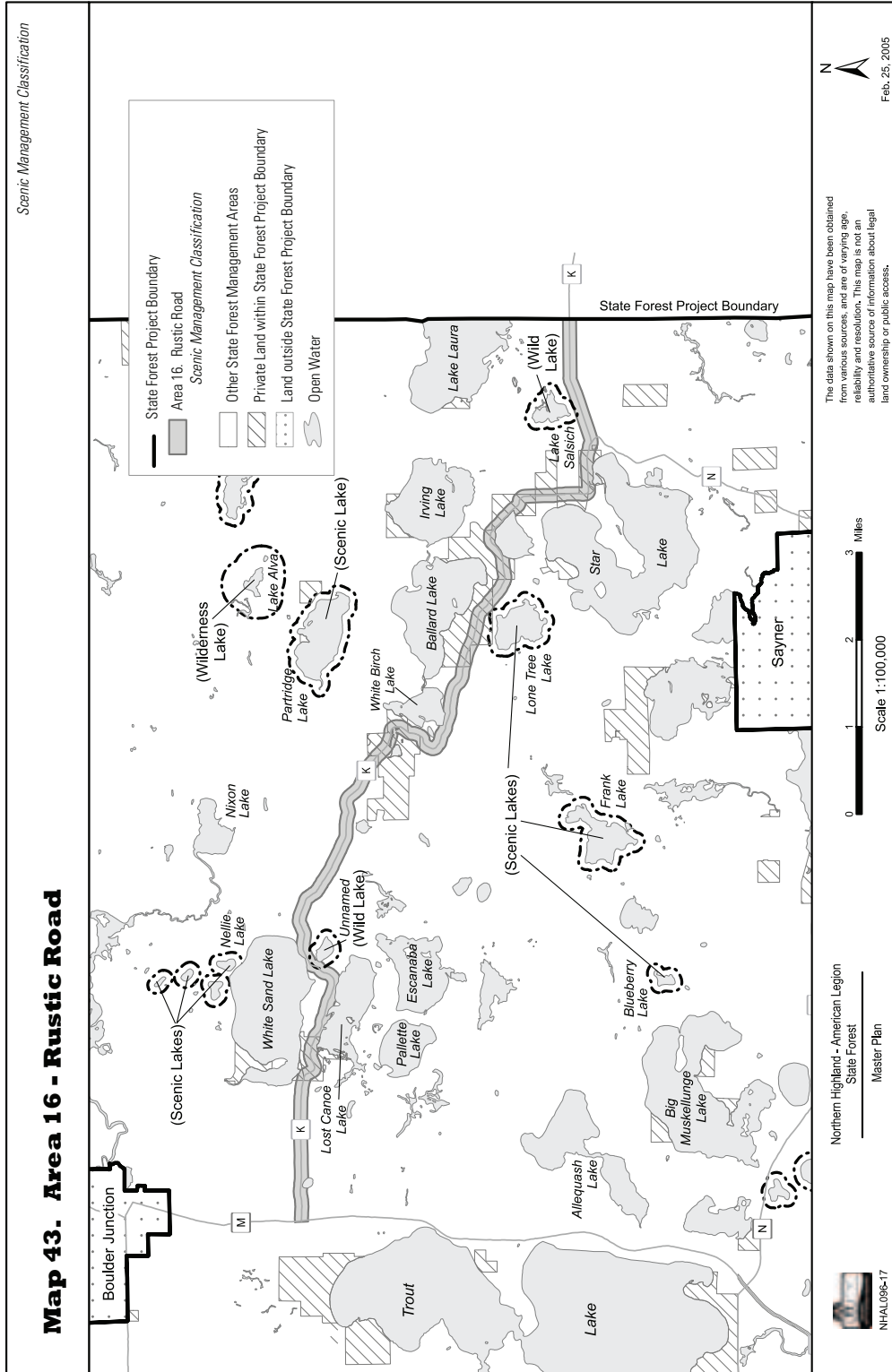
AREA 16 SUMMARY

- ▲ Follows Rustic Road #60, along County Highway K.
- ▲ This area is approximately 12 miles in length and 400 feet wide for a total of 567 acres.
- ▲ Manage to protect and enhance the scenic beauty of the Rustic Road corridor.

AREA 16 LOCATOR MAP

Scenic Resource Management Classification

RUSTIC ROAD

AREA
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**AREA
16****Scenic Resource Management Classification****RUSTIC ROAD****LONG-TERM OBJECTIVES (100 YEAR)**

- In cooperation with Vilas County, protect and enhance the aesthetic and scenic beauty of the rustic road corridor.
- Maintain a mix of forest types but generally favor longer-lived species of red and white pines or other long-lived tree species.

SHORT-TERM OBJECTIVES (50 YEAR)

- Maintain the Department managed lands along the road corridor in a natural appearing condition.
- Maintain a healthy, forested condition and a broad mix of forest types, with an emphasis on longer-lived tree species. In areas of predominantly shorter-lived, even-aged tree species, convert to longer-lived species as quickly as possible while retaining the high visual quality of the area.
- Maintain or create scenic vistas that enhance the visual variety and quality of the landscape.
- Eliminate visual impacts and safety concerns created by dead or declining trees and broken or leaning trees.
- Minimize the visual and audible impacts of management activities, including impacts from slash, forest roads, and log landings.

**RESOURCE MANAGEMENT
PRESCRIPTIONS**

The General Timber Type Management Prescriptions and their all of their associated management activities (described at the beginning of the Land Management Section) apply, except as limited by the prescriptions below:

- Manage for large longer-lived trees such as red and white pine on suitable sites. If needed, under-plant to increase stocking levels of desirable species. Restoration activities are allowed to promote long-lived species and promote natural appearing forest stands. Underplant native species for visual variety.
- Within 50 feet of the County Highway Right-of-Way:
 1. When harvesting timber or performing other management activities, to the degree possible, minimize disturbances, except as necessary to create or maintain scenic vistas.
 2. Remove dead, declining or short-lived species near maturity as well as invasive species.
 3. Eliminate slash.
- Beyond 50 feet of the County Highway Right-of-Way:
 1. To the degree practicable, modify the standard forest management prescriptions to minimize the visibility of management and development activities as viewed from the road.
 2. Reduce slash not screened from view from road to a maximum height of 24 inches.
- Landings for forest products are not permitted within this management area.
- Design forest access roads to have the minimal visual impact.
- Time management activities so they coincide with lower levels of recreational use periods whenever possible.
- Identify, maintain or create key scenic vistas along the road corridor as appropriate.

Wild Resource Management Classification

INTRODUCTION

**One area has been identified as a
“Wild Resource Management Area”**

Area 17: Manitowish Wild Resource Area

The Manitowish River Wilderness is classified as a Wild Resources Management Area. The Wild Resource management classification is typically applied to undeveloped areas that have the potential to be restored to a substantially wild condition. These locations are managed to provide land and water areas where natural ecological processes predominate and evidence of human cultural impact is low.

Any management activities conducted within Wild Resource Areas are performed in a manner that attempts to minimize the perception of human activity. Typically there is little or no visible resource management activities and the facility development is limited to primitive recreational uses. Road construction to support management and restoration activities within a wild resource area are limited to the degree possible and are generally abandoned after completion of the management activity. Also, all pre-existing structures (i.e., roads, buildings, bridges, and dams) will be removed if they are not specifically identified in this master plan. Structures with

historical value are an exception and may be maintained within the wild resource area. Action is taken to control invasive species that threaten the Area’s wildland character or outstanding natural values. Fire is suppressed in wild resource areas as much as possible and timber salvage after a natural disturbance is not allowed.

Management activities within the Wild Resource Areas are generally authorized for the purpose of protecting or enhancing the outstanding natural or aesthetic values and restoring the Area’s wild character. Planting native vegetation and limited vegetation cutting (i.e., thinning of residual tree plantations to create a more natural appearing forest condition, the removal of trees considered to be a hazard to the public or when associated with a recreational facility, and the removal of invasive species) may be conducted within a Wild Resource Area. However, other types of vegetation management or timber harvesting activities are not allowed.

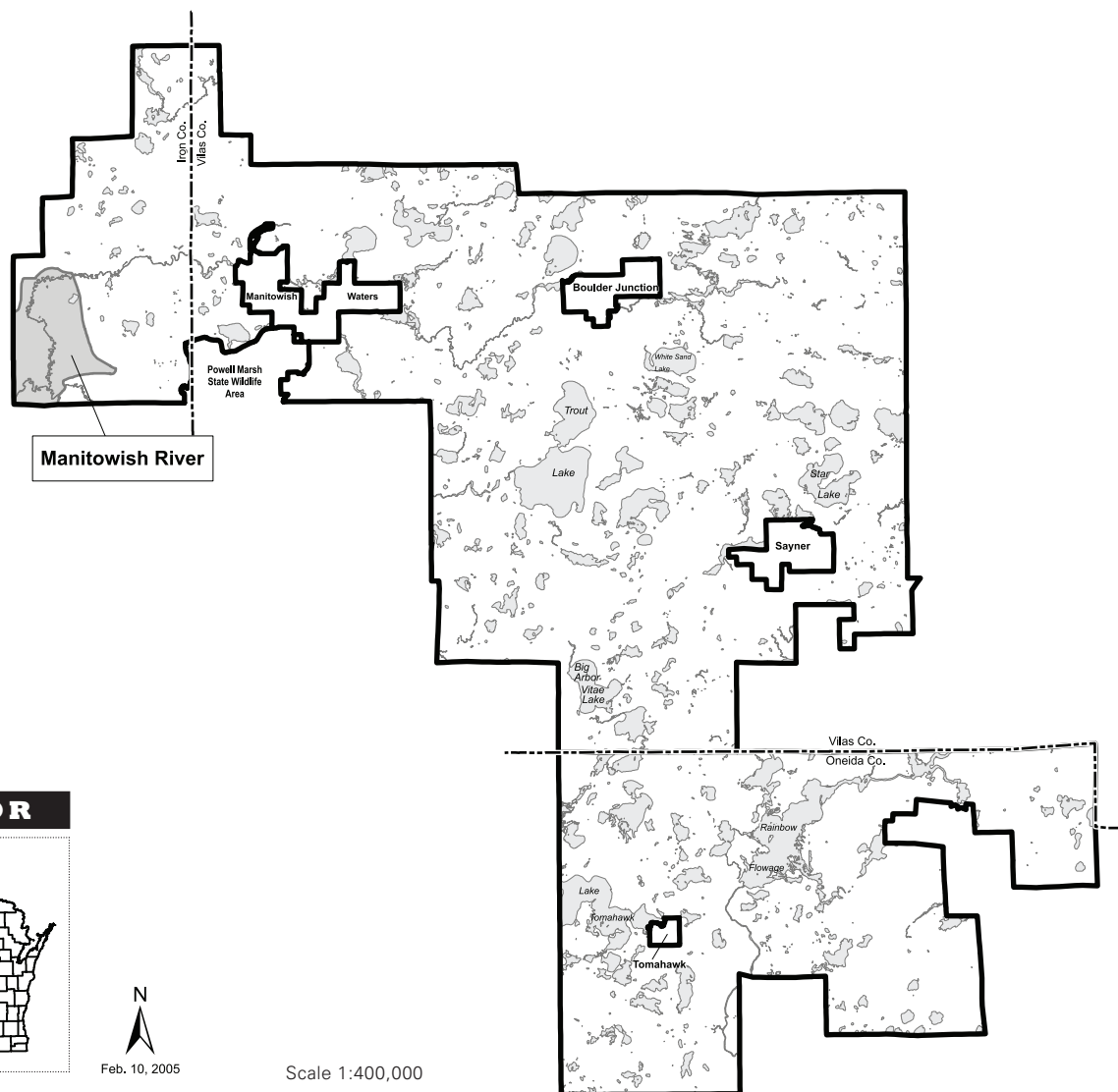


Wild Resource Management Classification

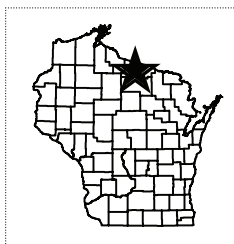
INTRODUCTION

AREA
17

MAP 44: WILD RESOURCE MANAGEMENT CLASSIFICATION AREAS



LOCATOR



Feb. 10, 2005

Scale 1:400,000

MAP 44 LEGEND

- State Forest Project Boundary
- Wild Resource Management Classification Area
- County Boundary
- Open Water

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**AREA
17****Wild Resource Management Classification****MANITOWISH RIVER WILDERNESS**

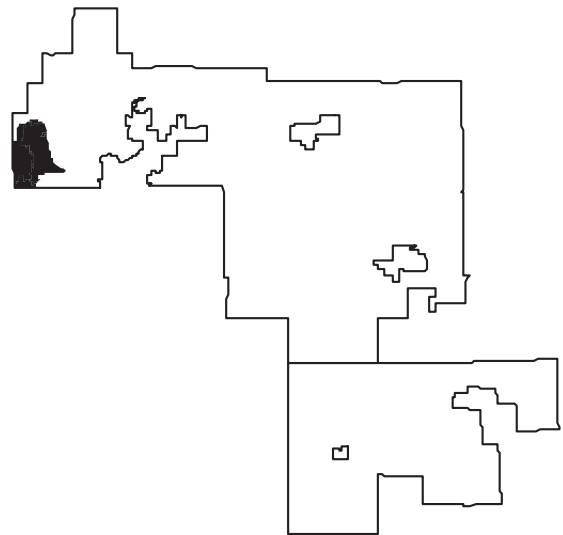
The Manitowish River flows through the heart of this 6,265 acre area. The landscape of the Manitowish River Wilderness Area is mostly flat and wet, supporting a mosaic of wetland and upland habitats. The wetlands flow from the Winegar Moraines south through the Manitowish Peatlands, and then into adjacent lands such as the Turtle-Flambeau Scenic Waters Area, Lac du Flambeau Reservation, and the Chequamegon Unit of the National Forest. The soils are mostly very poorly drained organic peat with some areas of sands or loamy sands.

The current landscape is a mosaic of wetland and upland habitats. The wetlands are mostly open bog with little woody growth, or are covered by wetland shrubs, although areas of black spruce and tamarack do occur. The uplands contain aspen and red and white pine stands with some mixed hardwoods. Some upland islands contain old growth red and white pine stands. The area contains one 54 acre red pine plantation of 1967 origin.

Historically, both fire and floods, with the water table rising in wet years and dropping in drought years, were the major influences on the vegetation. Upland stand-replacing fires had cycles every 50-200 years, but some trees survived over 300 years. These conditions created a forest of red/white pine with aspen and white birch. Fires also maintained the open treeless bog habitat. Bog, poor fen, and tamarack forest are the historical wetland vegetation, and are represented today much as they probably were before European settlement.

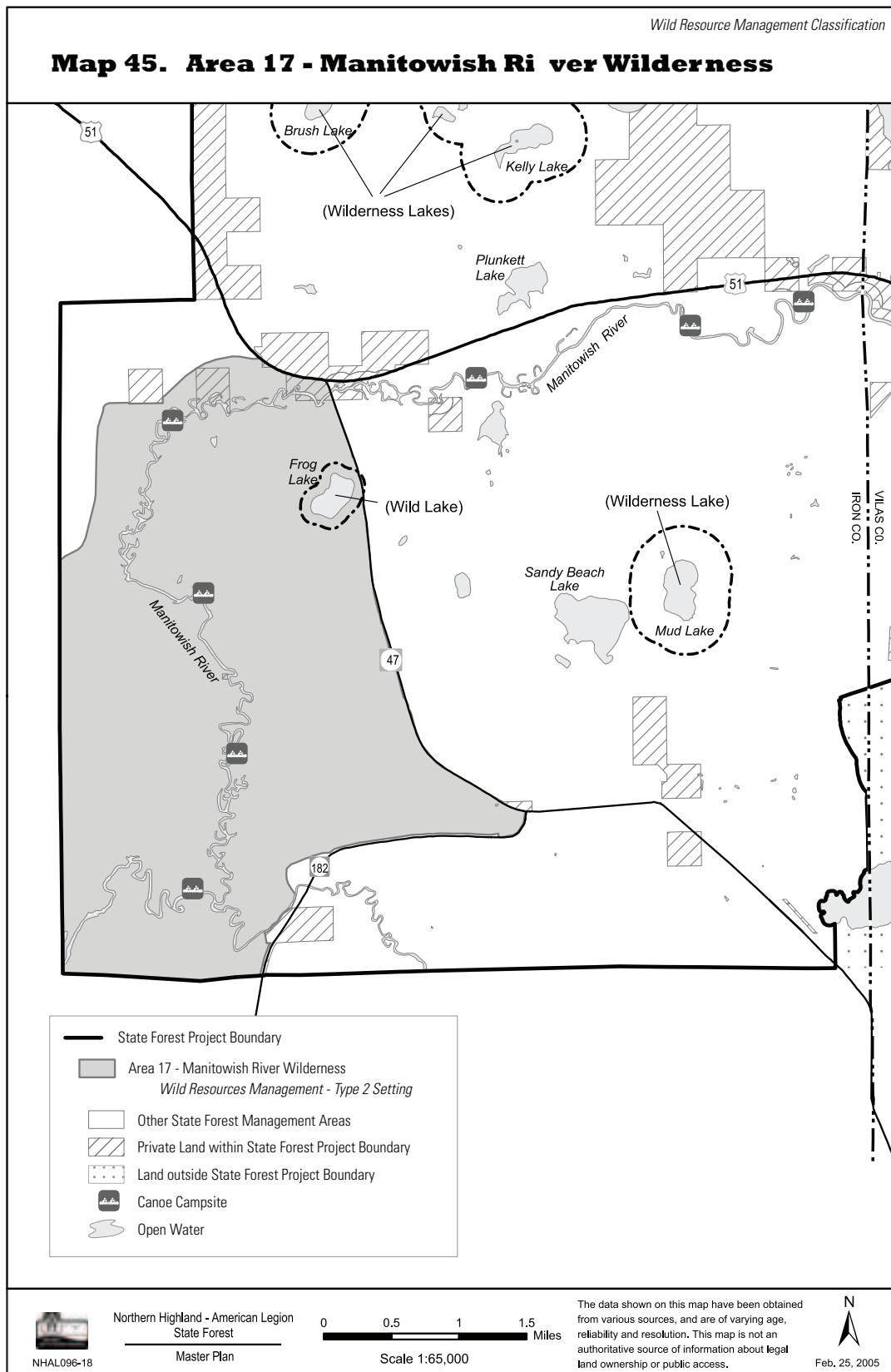
AREA 17 SUMMARY

- ▲ This area is approximately 6,265 acres in size with 5,939 acres in state ownership.
- ▲ Opportunity to maintain the high quality open sedge meadow, bog, shrub and forested wetland system for ecological, water quality and habitat values.
- ▲ Conservation of wetland habitats for many rare species.
- ▲ Passive management throughout this area, allowing most natural forces to determine the future composition of wetland and upland habitats.

AREA 17 LOCATOR MAP

Wild Resource Management Classification

MANITOWISH RIVER WILDERNESS

AREA
17

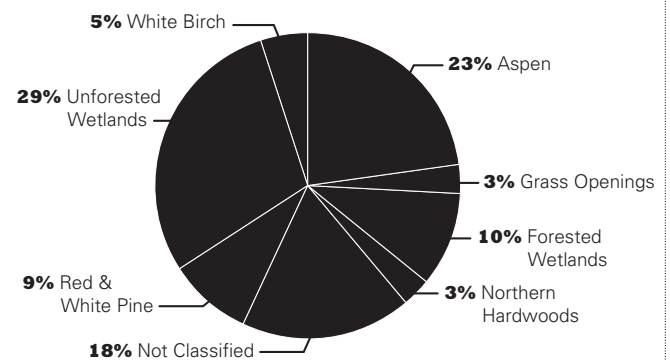
**AREA
17****Wild Resource Management Classification****MANITOWISH RIVER WILDERNESS****LONG AND SHORT-TERM OBJECTIVES
(100 AND 50 YEAR)**

- Through passive management, develop and maintain a red pine and white pine forest with gradual transition (>100 years) to maple/ hemlock forest, swamp conifer and lowland brush with old-growth characteristics.
- Protect Frog Lake, an ultrasoft water lake, for its biotic community and scenic values.
- Provide remote, quiet, non-motorized recreation in a setting with limited access and low signs of human activity. Provide primitive canoe camping opportunities, and limited trail access into the area.

**RESOURCE MANAGEMENT
PRESCRIPTIONS**

Only the management activities outlined below may be conducted within this management area.

- Permit natural processes to predominate. Passively manage the entire management area, except to remove invasive species, restore forest stands to a natural appearing forest, particularly restoring pine plantations, and restore roads to a natural condition, or maintain designated trails and canoe campsites. Salvage activities following a natural disturbance is not allowed.
- Monitor insect and disease outbreaks when they occur and take action only when there is a strong threat to forests outside of the management area.
- Actively suppress forest fires that threaten areas outside of the management area using the minimum actions required. Restore any soil disturbed to its original topography. Develop a wild fire response plan to minimize adverse soil disturbance, while assuring public safety.
- Conduct regular reconnaissance monitoring and explore opportunities for additional research regarding forest composition and change within the Wild Resource Area. Develop a plan to monitor the forest composition and rare species populations to learn more about forest regeneration and its affects on rare plant and animal populations.
- Maintain a primitive trail for walk-in access to Frog Lake's north shore, and develop a four car parking area and install a pedestrian only access fence at the trailhead on Highway 47.
- Level the berm and restore pine forest vegetation on the former logging road west of the snowmobile trail.

AREA 17 CURRENT LAND COVER

- Maintain several primitive canoe campsites along the Manitowish River. Remove the picnic tables located at these sites due to the new standards for campsites located in wild resource areas.
- Restrict all motor vehicle access to the area, except to respond to health and safety or other emergencies.
- One wilderness lake, Frog Lake, lie in this management area. The prescribed passive management in this area is fully compatible with the management requirements for a wilderness lake. Manage frog lake consistent wit the wilderness lakes designation. See the wilderness lakes management zone section for information on the non-vegetative management requirements within the wilderness lake zone.

STATE NATURAL AREA DESIGNATION

See the State Natural Area discussion in the Appendix for detailed information.

The Manitowish River Wilderness Area contains a proposed 1,248 acre State Natural Area designation for Frog Lake and Pines. See the State Natural Areas discussion and map for additional information.

Wild Resource Management Classification

MANITOWISH RIVER WILDERNESS

AREA
17**Table 2.15 Area 17- Manitowish River Wilderness, Current and desired future conditions for community types in acres and percent of total.**

Community type	Current		Desired Future Condition	
	% of Total Area	Acres	% of Total Area	Acres
Aspen	1,386	23%	400	7%
Grass openings	153	3%	0	0%
Forested Wetlands	613	10%	370	7%
Northern hardwoods	170	3%	1,520	25%
Not Classified	1,061	18%	1,039	17%
Red & White pine	514	9%	510	9%
Unforested wetlands	1,739	29%	2,000	33%
White birch	303	5%	100	2%
TOTAL	5,939	100%	5,939	100%

The table shows estimated changes in vegetation that are predicted to naturally occur under passive management in the absence of a significant natural disturbance. The increase and decrease of forested and unforested wetlands is due to natural succession or natural catastrophes. The Not Classified category includes river frontage, lake zones and recent acquisitions.



**AREAS
18-19****Special Management Classification**

INTRODUCTION

Within the NH-AL State Forest, two areas have been identified as "Special Management Areas"

Area 18: Trout Lake Forestry Headquarters

Area 19: Woodruff Administration and Fish Hatchery

The management objective of a special management area is to provide and maintain areas and facilities for special uses not included under other land management classifications. Examples of special management areas include administrative or service facility areas, cultural resource protection areas, propagation and nursery areas and demonstration or experimental management areas when the primary use is for research and testing of new resource management methods and techniques (WDNR 2001).

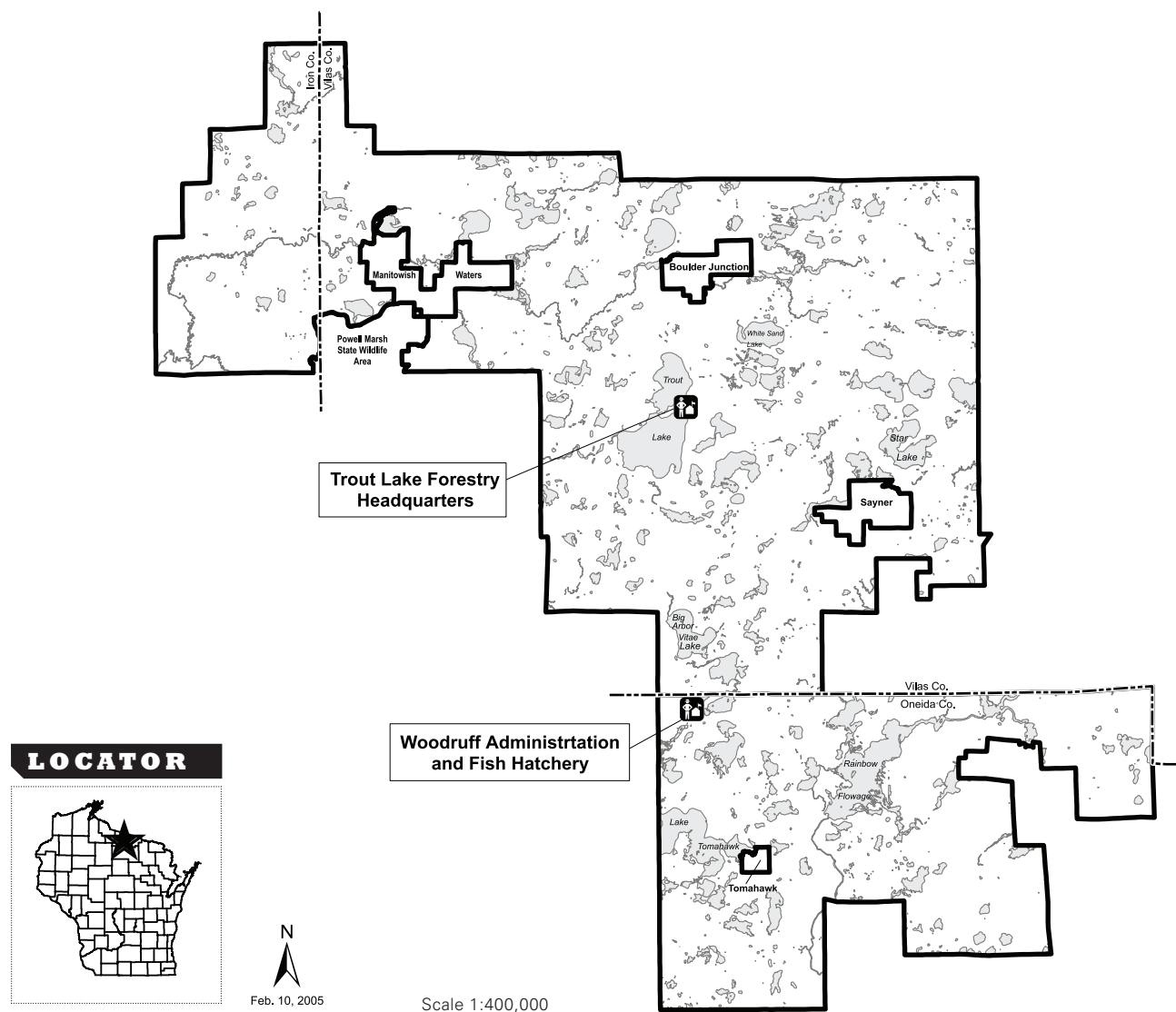


Special Management Classification

INTRODUCTION

AREAS
18-19

MAP 46: SPECIAL MANAGEMENT CLASSIFICATION AREAS



MAP 1 LEGEND

- State Forest Project Boundary
- Special Management Classification Areas**
 - Area 18. Trout Lake Forestry Headquarters
 - Area 19. Woodruff Administration and Fish Hatchery
- Other State Forest Management Areas
- - - County Boundary
- Open Water

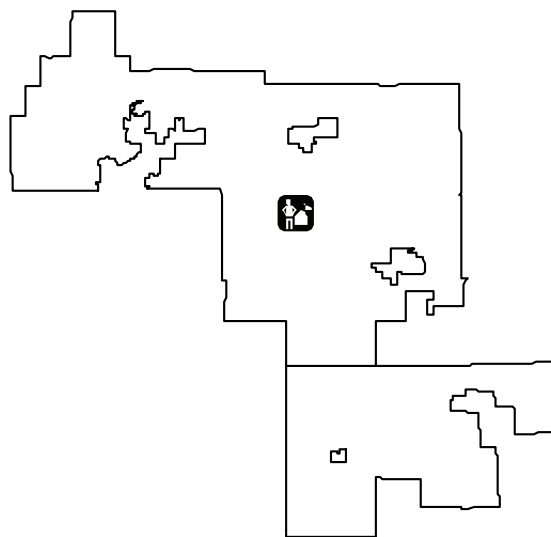
The data shown on this map have been obtained from various sources, and are of varying age, reliability and resolution. This map is not an authoritative source of information about legal land ownership or public access.

**AREA
18****Special Management Classification****TROUT LAKE FORESTRY HEADQUARTERS**

This administrative area encompasses the Trout Lake Headquarters/public contact building, the maintenance garages, and seasonal employee residence halls. This area is approximately 292 acres in size and is located near Trout Lake on HWY M. The Boulder Junction bike trail, which runs along HWY M, passes through the Trout Lake Administration area. This is also the former site of Wisconsin's first state tree nursery. It was established in 1911 and closed in 1968. Nursery area is managed as a pine plantation today.

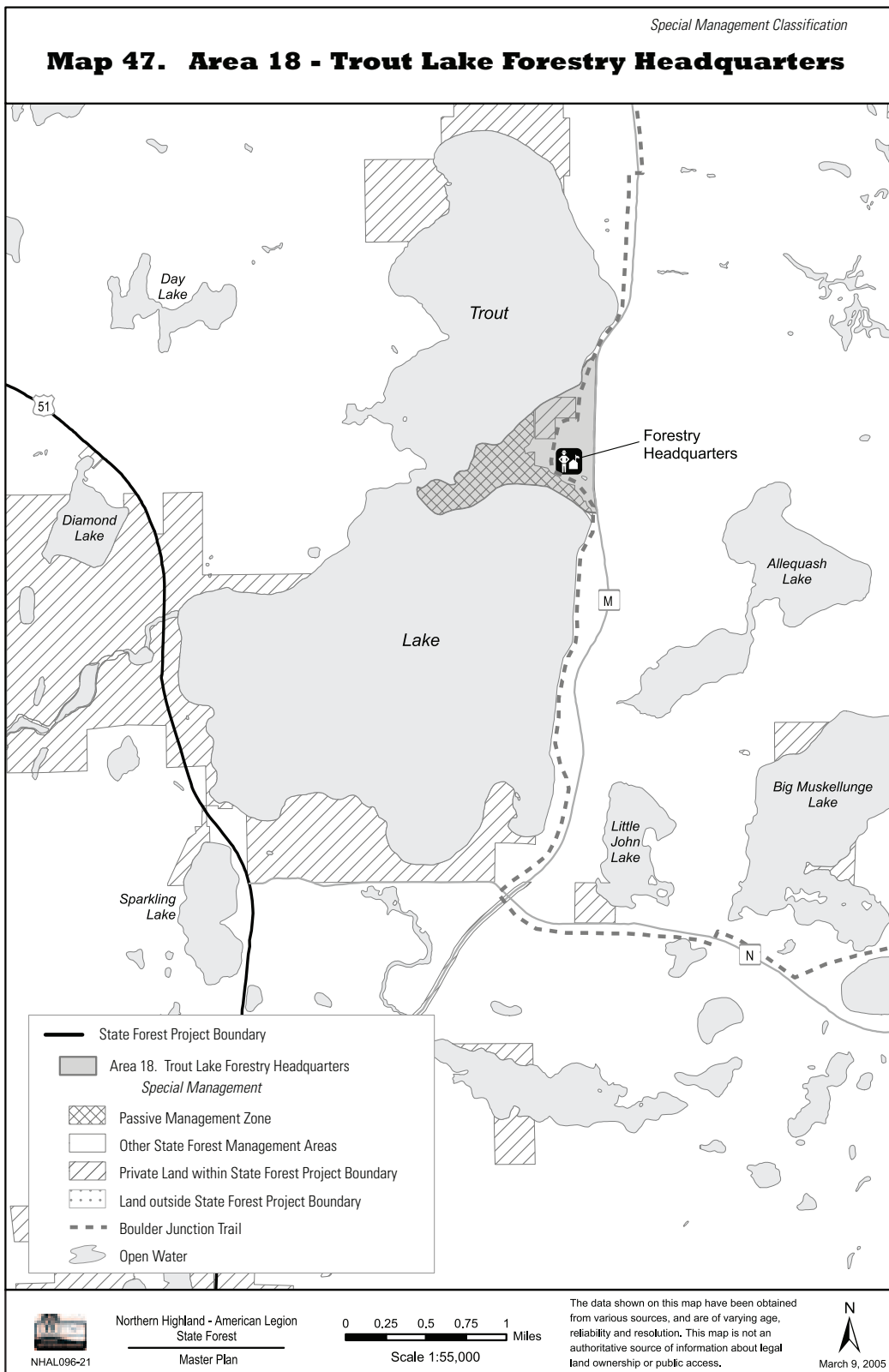
AREA 18 SUMMARY

- ▲ This area is approximately 292 acres in size with 263 acres in state ownership.
- ▲ Management for State Forest administrative buildings, aesthetic values, and recreational/educational uses.

**AREA 18 LOCATOR MAP**

Special Management Classification

TROUT LAKE FORESTRY HEADQUARTERS

AREA
18

**AREA
18****Special Management Classification****TROUT LAKE FORESTRY HEADQUARTERS****LONG AND SHORT-TERM
MANAGEMENT OBJECTIVES**

- Provide general visitor information and support services as well as compatible educational opportunities.
- Provide facilities for state forest administrative and staff support functions, such as staff offices, customer service, and equipment storage and maintenance.
- Manage the forest across the management area primarily for long-term aesthetics. Maintain the scenic, old-forest characteristics of the Trout Lake Peninsula, including stands of large pines. In the other forest stands, manage to establish large trees with old-forest characteristics.

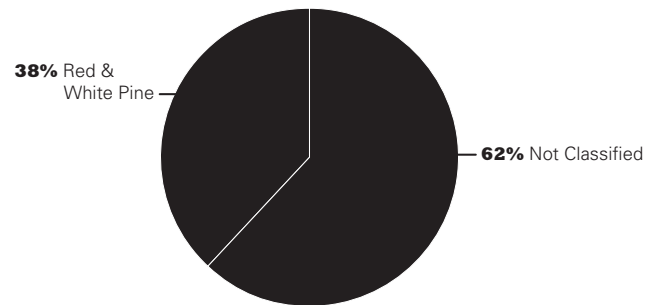
MANAGEMENT PRESCRIPTIONS**Facility Management**

This master plan does not control the specific operations or development of facilities within this area. Administrative and operational facilities are managed under separate state administrative processes. Any historical buildings are managed according to the requirements of DNR manual code 1810.1.

Vegetation Management

The General Timber Type Management Prescriptions and their all of their associated management activities (described at the beginning of the Land Management Section) apply, except as limited by the prescriptions below:

- Passively manage the Cathedral Point site. The area extends from the natural stands west of the office out to the point. An exception to the passive management prescription is the stand of the planted pines within this area. It should be actively managed until the stand reaches maturity (30-50 years), then review the long-term management needs for this stand.
- On the lands outside of the Cathedral Point area, use appropriate management techniques across the management area to develop large pines and northern hardwoods. Specifically, thin the plantations when they reach full stocking to promote larger trees and a natural stand appearance. Establish and maintain old-forest characteristics in the natural pine and red oak stands located east of the Office.
- Remove diseased and defective trees that are hazardous to staff or the public.

AREA 18 CURRENT LAND COVER

Special Management Classification

TROUT LAKE FORESTRY HEADQUARTERS

**AREA
18**

**AREA
19****Special Management Classification****WOODRUFF ADMINISTRATIVE AND FISH HATCHERY**

This special management area encompasses the Woodruff administration/service center facility, maintenance garages, and the Art Oehmcke Fish Hatchery. This area is approximately 111 acres in size and bisected by HWY J.

**LONG AND SHORT-TERM
MANAGEMENT OBJECTIVES**

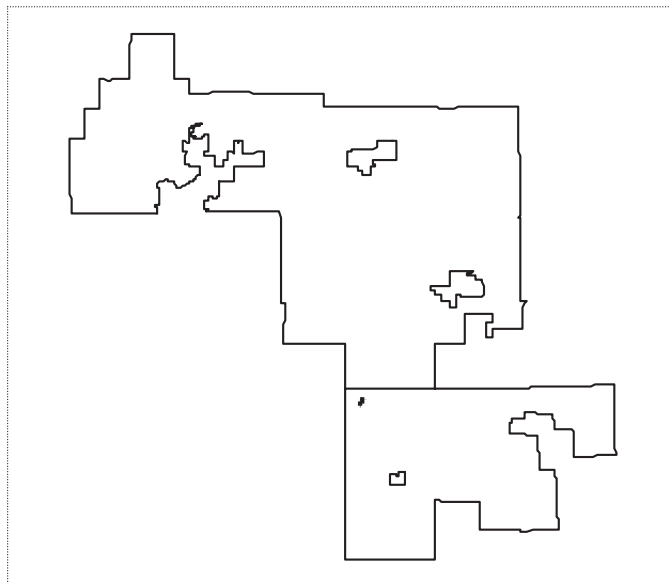
- Provide facilities for NH-AL a variety of customer services or programs, administrative offices, and equipment storage and maintenance.
- Provide facilities for fish rearing and related activities.

MANAGEMENT PRESCRIPTIONS**Facility Management**

This master plan does not control the specific operations or development of the facilities within this area. Administrative and operational facilities are managed under separate state administrative processes. The day-to-day operations of this management area is under the direction of the fisheries program.

Vegetation Management

- Annually remove diseased and defective trees that may be hazardous.
- Periodically thin pine plantations around the buildings to maintain their growth and vigor.
- Other vegetation management activities may be done as needed to support the use and purposes of the area.

AREA 19 LOCATOR MAP

AREA 19



**AREAS
20-22****Recreation Management Classification****INTRODUCTION**

Within the NH-AL, three areas have been identified as “Recreation Management Areas”

Area 20: Crystal Lake Recreation Area

Area 21: Bittersweet Recreation Area

Area 22: Clear Lake Recreation Area

The purpose of a recreation management area is to provide and maintain land and water areas and facilities for outdoor public recreation or education. Each separate recreation area has different goals regarding future landscape conditions, management activities, policies for protection, maintenance, enhancement or restoration of the visual characteristics important to the recreational use of the area.

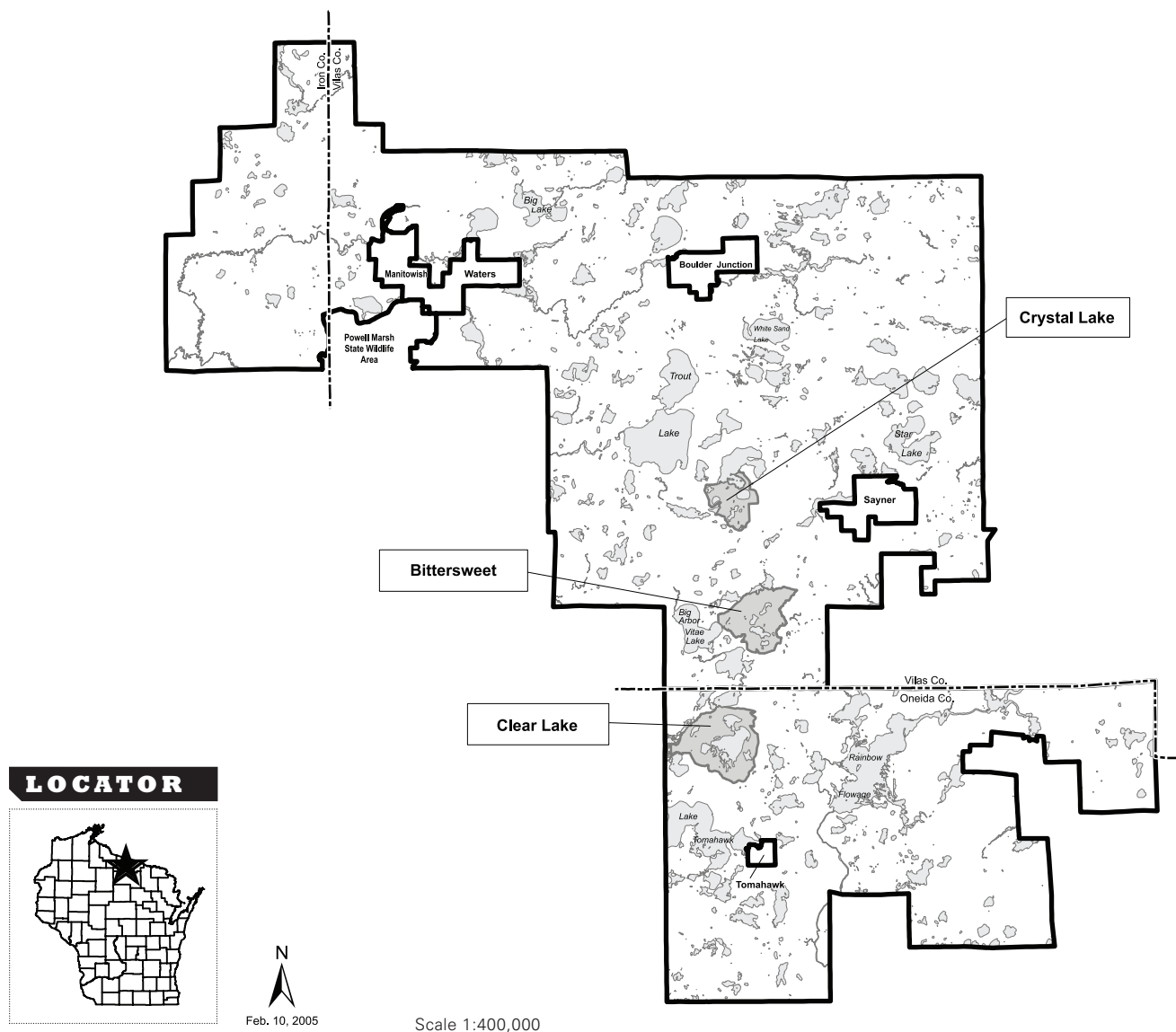


Recreation Management Classification

INTRODUCTION

AREAS
20-22

MAP 49: RECREATION MANAGEMENT CLASSIFICATION AREAS



MAP 1 LEGEND

- State Forest Project Boundary
- Recreation Management Classification Areas
 - Area 20. Crystal Lake
 - Area 21. Bittersweet
 - Area 22. Clear Lake
- Other State Forest Management Areas
- - - County Boundary
- Open Water

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**AREA
20****Recreation Management Classification****CRYSTAL LAKE**

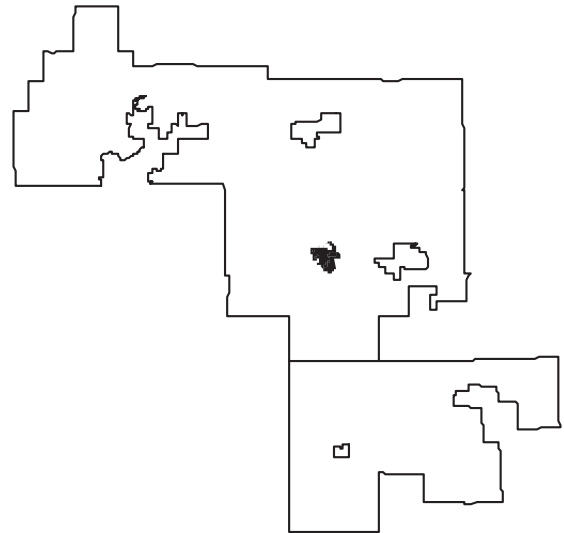
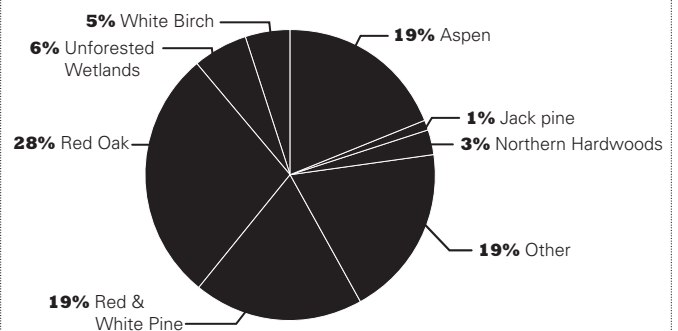
This small 1,447 acre area is a subset of Area 7 – Vilas Sandy Plains Central. As such, it contains much of the same geological and ecological characteristics of that larger unit. It consists of pitted outwash topography with well-drained sandy soils and several quality lakes. The unit is located within two different land types situated to the north and to the south, with the more productive habitats occurring in the southeast corner, south and east of Fallison Lake.

Red oak is the most dominant type found in this area today, followed by equal parts of red and white pine and aspen types. All three of these types are well suited to the ecological capability of the area. Typical understory shrubs in this unit consist of hazelnut, juneberry, low sweet blueberry, sweetfern, and maple-leaf viburnum. Typical herbs include wild lily-of-the-valley, bracken fern, grasses and sedges, and big leaf aster. Forested wetlands are essentially non-existent; however, a fair amount of open wetlands are scattered throughout.

At European settlement, this area was mostly covered with red and white pine. White birch and aspen were also present in significant amounts as secondary types, along with patches of jack pine and an area of northern hardwood. Historically, fire was a significant disturbance factor in this area. Stand replacing fires had cycles every 50-200 years, but some trees probably survived over 300 years. Some fires may have burned the understory without killing the pines, creating a more open forest where this occurred. Other fires opened up stands and set succession back to the early pioneer species and shrubs.

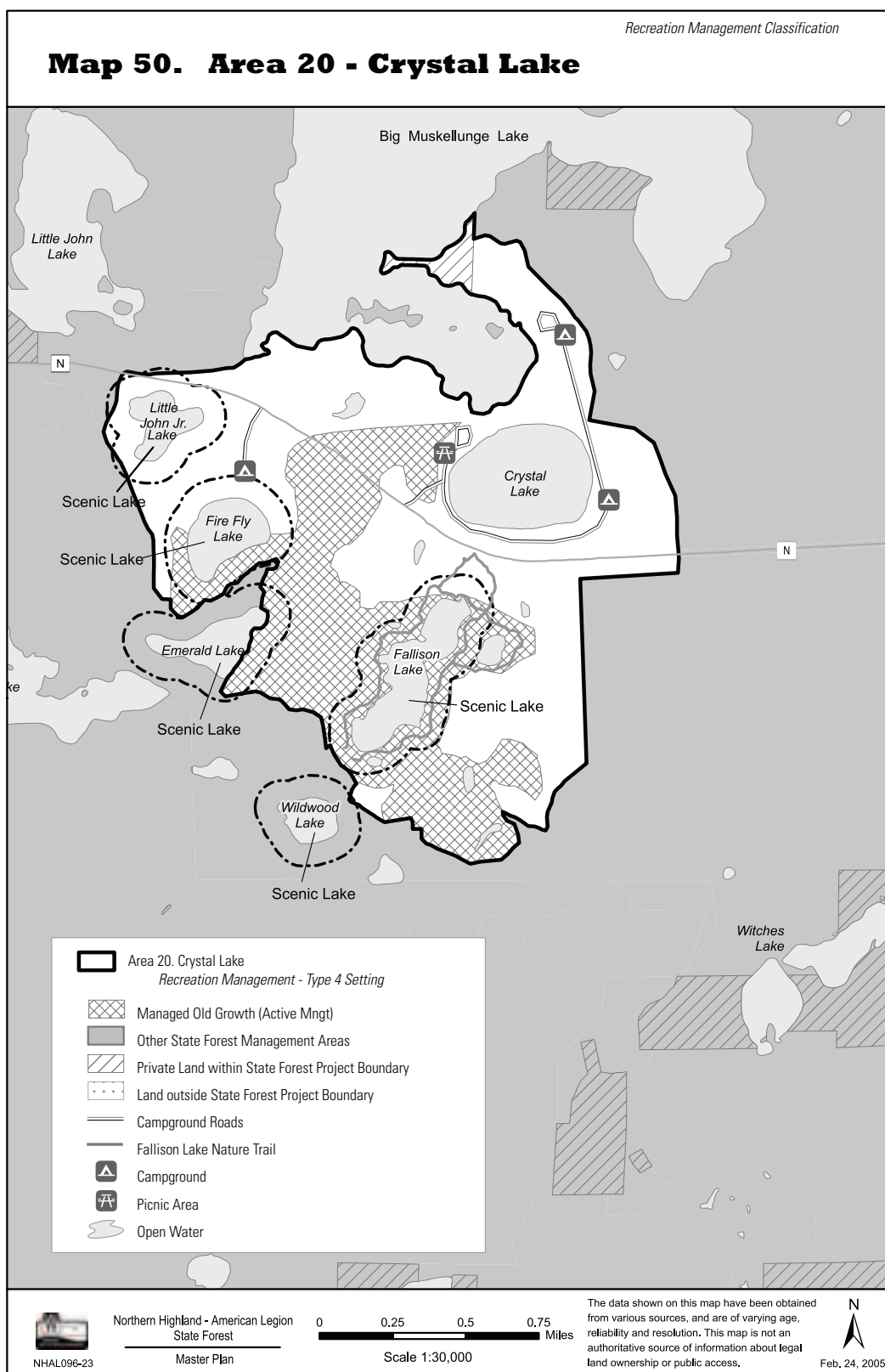
AREA 20 SUMMARY

- ▲ This area is approximately 1,447 acres in size with 1,178 acres in state ownership.
- ▲ This area is the most heavily used recreational area on the State Forest.
- ▲ Aesthetic quality and safety of forest users will be the primary objectives in this area.
- ▲ This area contains the Firefly Lake managed old growth forest site.

AREA 20 LOCATOR MAP**AREA 20 CURRENT LAND COVER**

Recreation Management Classification

CRYSTAL LAKE

AREA
20

**AREA
20****Recreation Management Classification****CRYSTAL LAKE****DESCRIPTION OF THE RECREATIONAL SETTING**

The Crystal Lake Recreation Area is the most developed and the most used recreational complex site on the NH-AL. It has three modern campgrounds, Crystal Lake, Firefly Lake, and Muskellunge Lake. A day use area and nature center and the Fallison Nature Trail compliments the area. Other facilities within this management area include large sandy beaches, swimming areas, showers, vault and flush toilets and a sanitary dump, a paved bike trail leading to Boulder Junction, boat landings to area lakes, and a public contact station.

**LONG-TERM OBJECTIVES
(100 YEARS)**

- Maintain the area as an attractive and safe setting for intensive and non-intensive types of recreational use, such as camping, picnicking, water sports, trail activities, and nature interpretation.
- Maintain a mixed forest dominated by older red and white pine and red oak with aspen, white birch, and jack pine as important secondary species. Maintain red oak on sites with slightly richer soils.
- Maintain and protect open wetlands.
- Within the Firefly Lake old-growth site maintain old-growth pine, oak and mixed hardwoods.

**SHORT-TERM OBJECTIVES
(50 YEARS)**

- Provide opportunities for high quality, modern, intensive recreational uses featuring modern camping and day uses and nature interpretation/education in an attractive outdoor setting.
- Increase red and white pine and red oak dominance across most of the mixed forest stands as opportunities present.
- Retain and increase red and white pine in aspen, red oak, white birch and jack pine stands.
- Maintain a diversity of the early forest succession types over the area with a slight decrease in their relative abundance over time.
- Maintain the northern hardwood community type.
- Maintain and enhance red oak on suitable sites.
- Within the Firefly Lake old growth site enhance the development of a mixed pine forest dominated by old trees, large amounts of coarse woody debris, numerous standing dead snags, and an age diversity of trees.

RESOURCE MANAGEMENT PRESCRIPTIONS

The General Timber Type Management Prescriptions and their all of their associated management activities (described at the beginning of the Land Management Section) apply, except as limited by the prescriptions below:

- Conduct forest management activities at times that will have the least conflict with recreational use. Adjust management techniques to minimize negative visual impacts on recreational uses.
- Adapt the General Management Prescriptions for each stand to create, enhance and maintain old growth red/white pine, red oak, and stands of mixed northern hardwoods consisting of short-lived and long-lived species characteristics. This includes providing coarse woody debris, leaving large cull trees and increased snag tree densities.

RECREATION MANAGEMENT

Maintain the existing array of recreational facilities and expand or redevelop facilities within the area as described in the property-wide recreation management plan and consistent with the standards for a Type 4 Recreational Use Setting and modern campgrounds and dayuse areas in NR 44.07(7)(e)5b. Specific new developments or management actions include:

- A 50 additional campsites at the Firefly Lake Campground
- A 1.6 mile paved bike trail loop and a one mile nature trail that is in part disabled accessible.
- An outdoor seating area near the nature center for educational programs

Recreation Management Classification

CRYSTAL LAKE

AREA
20

Table 2.16 Area 20 - Crystal Lake, Current and desired future conditions for community types in acres and percent of total.

Community type	Current		Desired Future Condition	
	Current Acres	Current % Cover	Acreage Objective	Future % Cover
Aspen	230	19%	200	17%
Jack Pine	9	1%	9	1%
Northern Hardwoods	37	3%	37	3%
Other - Campground	219	19%	219	19%
Red and White pine	224	19%	254	21%
Red Oak	331	28%	351	30%
Unforested Wetlands	74	6%	74	6%
White Birch	54	5%	34	3%
TOTAL	1178	100.00%	1178	100.00%



**AREA
21****Recreation Management Classification****BITTERSWEET**

The 2,553 acre Bittersweet Prong area lies just a few miles north and east of the towns of Woodruff and Minocqua, off State Highway 70. It is located on fine sandy loam soils with a gentle to moderate rolling topography. Besides the sandy loams, a portion of the area also contains some excessively drained outwash sands, particularly in the southeast corner of the site. A range of habitat types can be found here. The site contains four undeveloped, quality softwater seepage lakes in close proximity to one another. An existing State Natural Area is located around these four lakes.

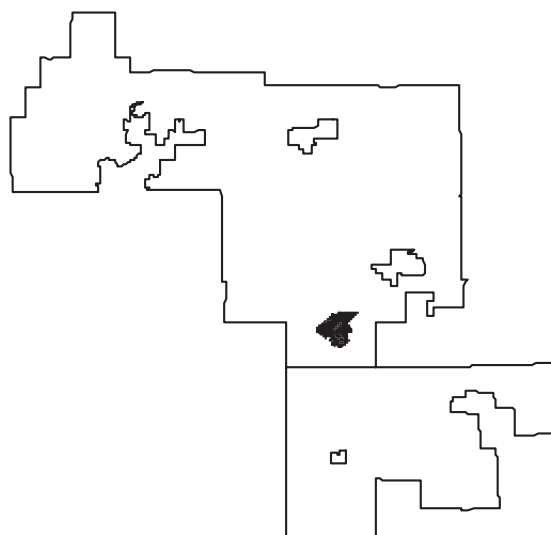
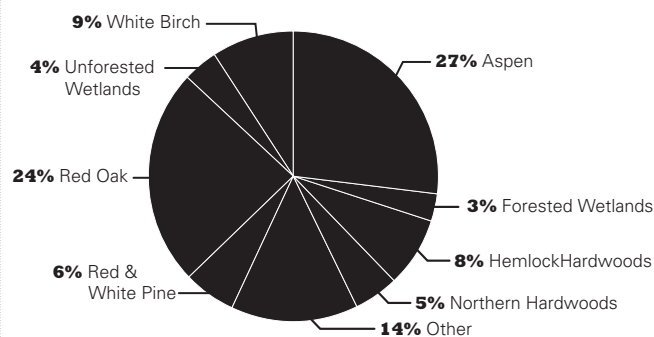
At European settlement, the area contained stands of hemlock hardwood on the richer soils and red and white pine on the sandier soils. Early successional species like aspen, white birch, and oak also were present as secondary associates or in disturbance patches. Historically, fire was a significant disturbance factor within this unit, as it was in many areas on the State Forest. Wind throw was and is another important disturbance factor. Sporadic wind events played a vital role in shaping forest succession.

At present, the most common forest types are aspen, red oak and white birch, although the latter is rapidly declining and will soon no longer be a component of the stand. There are also significant areas of northern and hemlock hardwoods and red and white pine. There are relatively few forested and unforested wetlands scattered across the landscape.

This area contains a complex of small, scenic, undeveloped, wild lakes (Bittersweet, Prong, Oberlin, and Smith) connected by portage trail. Another unique recreational quality of the area is its remoteness and the solitude it affords. Access is only via rough and unmarked roads (i.e. snowmobile trails) that generally require a 4W-drive vehicle. Low to moderate fishing is the primary recreational use. Currently camping is not allowed.

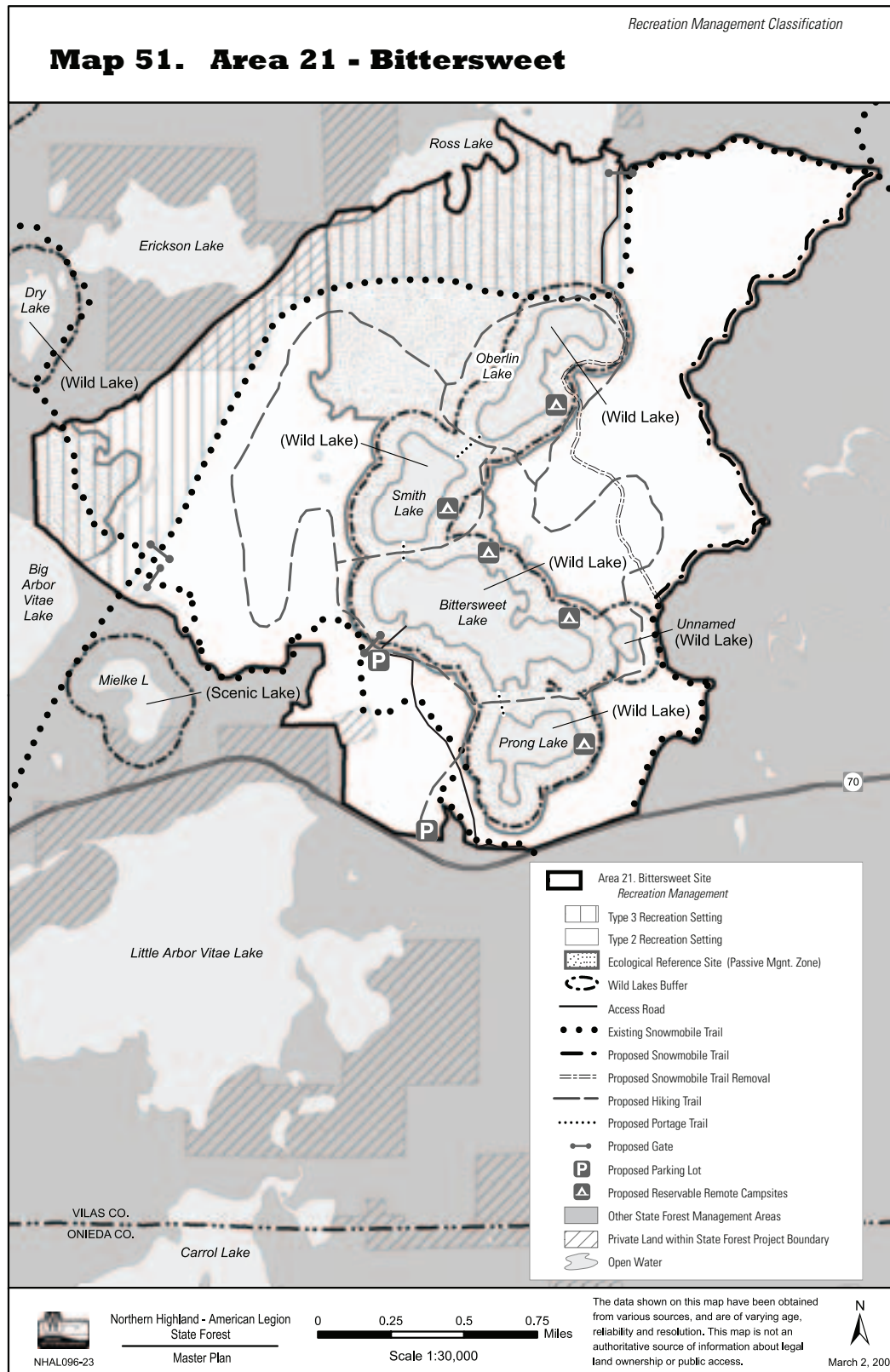
AREA 21 SUMMARY

- ▲ This area is approximately 2,553 acres in size with 2,553 acres in state ownership.
- ▲ Opportunity to manage for quiet year-round recreation in a non-motor area.
- ▲ Manage for scenic qualities, user safety, and old-growth forests.
- ▲ Five Wild Lakes

AREA 21 LOCATOR MAP**AREA 21 CURRENT LAND COVER**

Recreation Management Classification

BITTERSWEET

AREA
21

**AREA
21****Recreation Management Classification****BITTERSWEET****LONG-TERM OBJECTIVES (100 YEARS)**

- Develop and maintain a hemlock hardwood, northern hardwood, red pine, and white pine forest with old-growth characteristics across the management area.
- Maintain four ultra-soft water lakes for their biotic community and scenic values.
- Maintain opportunities for low density/low impact, and primarily non-motor recreation in a somewhat remote and natural appearing setting.

SHORT-TERM OBJECTIVES (50 YEARS)

- Maintain a core 1,136 acre passively managed ecological reference area surrounding the lakes that captures the oldest stands of hemlock, red pine and white pine known on the NH-AL. (The acreage figure includes 288 lake acres.)
- Outside of the core ecological reference area restore old-growth red and white pine and hemlock hardwood cover types wherever possible, and on dry, sandy sites maintain and enhance red oak, aspen, and white birch.
- Maintain water quality and species diversity of the aquatic areas.
- Provide an undeveloped, natural appearing setting on and around the lakes offering opportunities for solitude and primitive types of non-motorized, low-density recreation, including fishing, canoeing, hiking, and primitive camping.

**RESOURCE MANAGEMENT PRESCRIPTIONS**

The General Timber Type Management Prescriptions and their all of their associated management activities (described at the beginning of the Land Management Section) apply, except as limited by the prescriptions below:

- Apply passive management to the core ecological reference zone. (The lakes within this zone are designated wild lakes. The prescribed passive management is fully compatible with the wild lake management requirements.)
- Outside of the ecological reference zone, increase the proportion and age of red pine, white pine, red oak, and hemlock. Active management techniques may be used.
- Manage within the zone classified as a Type 2 Recreational Setting consistent with the requirements for that setting described in NR 44.07(5).
- Conduct management activities at times that will have the least conflict with recreational use. Adjust management techniques to minimize negative visual impacts on recreational uses. Give aesthetic and recreational uses preference when making active timber management decisions.

RECREATION MANAGEMENT

As shown on Map 60, a large core area around the lakes is designated as a Type 2 Recreational Use Setting and the remainder is a Type 3 – Recreational Use Setting as defined in NR 44.07(5) and (6)(h) respectively. The lakes are designated wild lakes, and the management prescriptions below meet wild lake management requirements. The management area is closed to public motor vehicle use of all types, except for the access road to Bittersweet Lake that is open to vehicles and a disabled accessible access road to Oberlin Lake, for snowmobiles on designated trails, and for vehicles on the a small portion of snowmobile trail on the western edge of the area.

Recreation Management Classification

BITTERSWEET

AREA
21**Table 2.17 Area 21 – Bittersweet, Current and desired future conditions for community types in acres and percent of total.**

Community type	Current		Desired Future Condition	
	Current Acres	Current % Cover	Acreage Objective	Future % Cover
Aspen	579	27%	530	24%
Forested Wetlands	74	3%	74	3%
Hemlock Hardwoods	176	8%	176	8%
Northern Hardwoods	103	5%	103	5%
Not Classified	308	14%	308	14%
Red and White pine	133	6%	163	7%
Red Oak	516	24%	585	26%
Unforested Wetlands	85	4%	85	4%
White Birch	579	27%	529	24%
TOTAL	2553	100.00%	2553	100.00%

Not Classified category contains acres that community types have not been inventoried and management set backs along lakeshores.

Hiking trails and a limited number of remote, reserveable primitive campsites will be developed in the area. Specific recreation management/development actions include the following:

- Close all other roads and snowmobile trails to public vehicles other than snowmobiles, except for the following:
 - Temporarily continue to allow disabled persons (with a permit issued by the Forest Superintendent) motor vehicle access to Oberlin Lake for fishing via the existing road from the north. Phase out and abandon this access road after ten years (2015).
 - Continue to allow all vehicle access on the ungated portion of snowmobile trail on the far western corner of the management area (as shown on Map 51).
 - Relocate a portion of the north/south snowmobile trail on the eastern side of the lakes to the eastern boarder of the management area as shown on Map 51. Abandon the old snowmobile trail by grading and seeding to control erosion, then allowing the trail to naturally revegetate. If a suitable location can be found, move the west snowmobile trail further away from Bittersweet and Prong Lakes.
 - Maintain a primitive to lightly developed vehicle access road to provide carry-in boat access to Bittersweet Lake. Develop a 10 to 12 car parking lot near HWY 70 and a 6-8 car parking area near Bittersweet Lake in the area shown on Map 51.

- Develop and maintain five reserveable, remote primitive campsites, two on Bittersweet Lake, and one each on Smith, Oberlin, and Prong Lakes.
- Maintain the portage trails between the four lakes as primitive trails.
- Develop and maintain an eight to nine mile lightly-developed hiking trail system.
- The Department or its contractors may use motor vehicles to conduct management activities in any area outside of the 400 foot wild lake management zones.

STATE NATURAL AREA DESIGNATION

See State Natural Area discussion in the Appendix for detailed information.

Proposed overlay designations for State Natural Area would occur for Bittersweet Lakes (1,136 acres, includes 288 lake acres).

**AREA
22****Recreation Management Classification****CLEAR LAKE**

This small 3,728 acre area is a subset of Area 11 – Big Arbor Vitae Loamy Hills. As such, it contains much of the same geological and ecological characteristics of that larger unit. The main focus of this area is to provide for quality recreational experiences through a number of developed facilities and trail systems in an attractive setting. The topography of the area consists of rolling pitted outwash soils with several wetlands and quality lakes of various sizes. The unit is located within two different land types. Clear Lake is the centerpiece and is roughly situated in the middle of the management unit. A variety of habitat types can be found here.

At European settlement, the area contained stands of northern hardwoods with pockets of hemlock hardwood on the richer soils and red and white pine on the sandier soils. Early successional species like aspen, white birch, red maple and oak were also present as secondary associates or in disturbance patches. Within the forested wetlands, tamarack and black spruce were predominant, with some scattered white cedar. Historically, fire was a significant disturbance factor in this area, especially in the western side of the unit. Stand replacing fires had cycles every 50-200 years, but some trees probably survived over 300 years. Wind throw was and is another important disturbance factor. Sporadic wind events, even recently, have played a vital role in shaping forest succession.

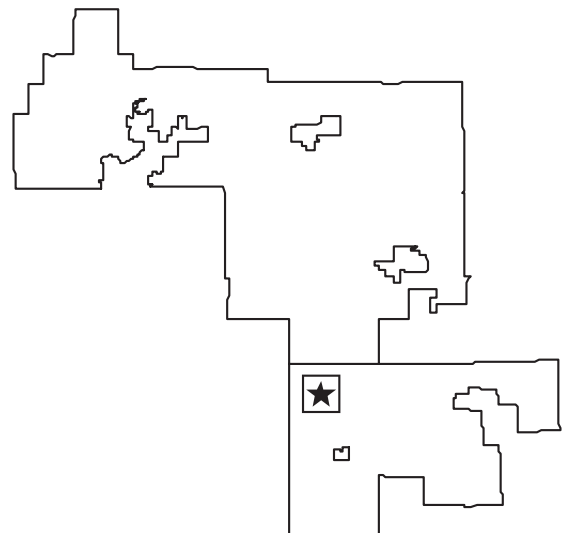
Today the area is primarily forested with northern hardwoods and red oak, with aspen and red and white pine also found in significant amounts. There are stands of older hemlock hardwoods and white-red pine forest located within close proximity to Hemlock Lake.

Description of the Recreational Setting

The Clear Lake Recreation Area is within easy access of the Minocqua/Woodruff tourist attractions. This area contains the most popular campground on the American Legion State Forest (Clear Lake). It also has a designated nature/hiking/cross country ski trail (Raven) and two popular day use/picnic areas. The modern Clear Lake Campground has flush toilets, showers and a sanitary dump station. A small rustic campground is also located on Carrol Lake. A remote camping opportunity is available at four reservable, remote campsites on Clear Lake's east shore. Other recreational facilities in this area are a large sandy beach, swimming area, water ski area, picnic area, boat landings, accessible fishing pier, and a contact station.

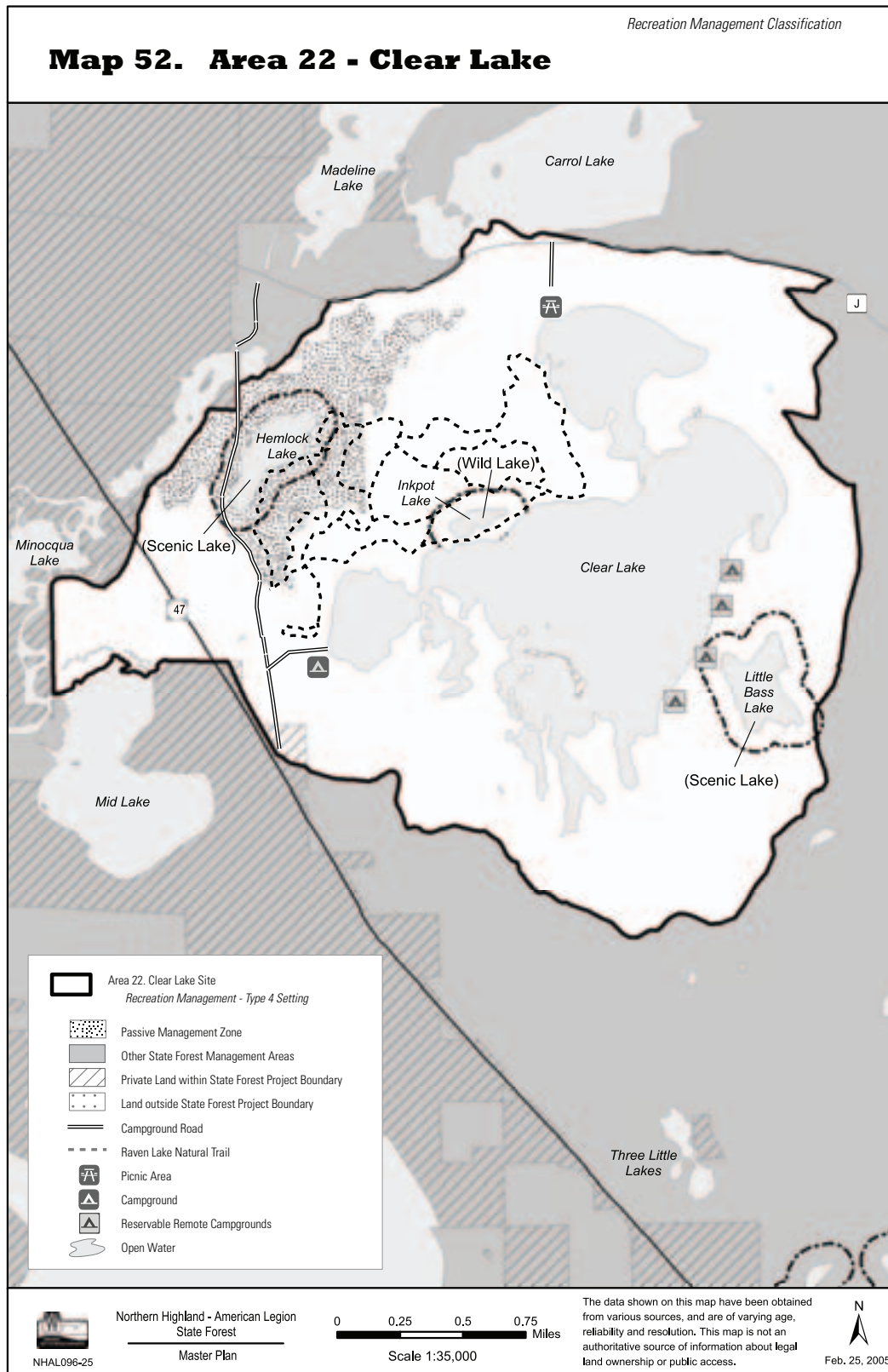
AREA 22 SUMMARY

- ▲ This area is approximately 3,728 acres in size with 2,659 acres in state ownership.
- ▲ Designated as a Recreation Management area.
- ▲ Management to provide and maintain land and water areas and facilities for outdoor public recreation or education.
- ▲ Integrate recreational use with forest management practices.
- ▲ The Hemlock Lake site will be passively managed.
- ▲ This area contains Little Bass Lake which is a Wild Lake.

AREA 22 LOCATOR MAP

Recreation Management Classification

CLEAR LAKE

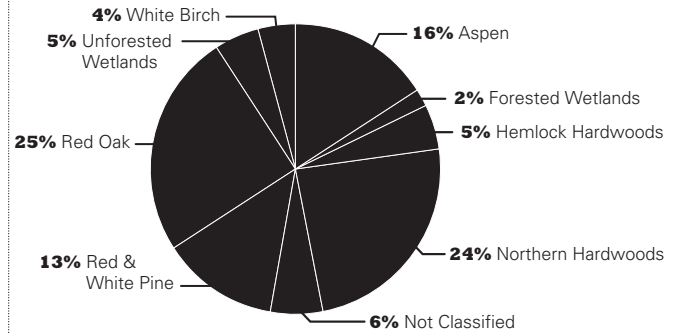
AREA
22

**AREA
22****Recreation Management Classification****CLEAR LAKE****LONG-TERM OBJECTIVES
(100 YEARS)**

- Maintain the area as an attractive and safe setting for intensive and non-intensive types of outdoor recreational use, such as camping, picnicking, water sports, trail activities, and nature interpretation.
- Develop a complex of mesic hemlock hardwoods, northern hardwoods and dry-mesic white pine-red pine and red oak forest with old growth characteristics. Secondly, maintain limited amounts of aspen and other minor early successional types.
- Maintain and enhance the hemlock hardwood and pine types and maximize their old growth characteristics through a variety of active and passive management techniques.
- Maintain open and forested wetlands.

**SHORT-TERM OBJECTIVES
(50 YEARS)**

- Increase white pine-red pine as opportunities allow with a corresponding small reduction of red oak and aspen.
- Maintain red oak on the most suitable sites.
- Maintain the northern hardwoods,
- Maintain pine plantations with regular silvicultural techniques (thinning) to promote health, vigor, and large tree size.
- Provide opportunities for high quality, modern, intensive recreational uses featuring modern camping and day uses and nature interpretation/education. Provide for non-motorized trail uses.
- In the area around Hemlock Lake, located west of Raven nature trail, maintain and enhance the hemlock hardwood and pine types to maximize old growth characteristics.

AREA 22 CURRENT LAND COVER**RESOURCE MANAGEMENT
PRESCRIPTIONS**

The General Timber Type Management Prescriptions and their all of their associated management activities (described at the beginning of the Land Management Section) apply, except as limited by the prescriptions below:

- Use a variety of management techniques to maintain and enhance the hemlock hardwood and pine and to maximize their old growth characteristics and lands outside of the Passive Management Zone.
- Passively manage the passive management zone shown on map 52. Except that salvage may be done as necessary to clean trail corridors or to remove hazard trees along trails.
- Maintain open and forested wetlands largely through passive management.
- When harvesting in mixed forest stands retain most red and white pine and encourage pine regeneration at the expense of aspen, birch, and in some cases, red oak.
- On several suitable sites retain and maintain red oak as the dominant cover type. On these sites use mechanical scarification or understory planting with white pine to increase its presence natural regeneration is inadequate. (These sites will be managed for a mixture of red oak and white pine, which are most suitable to these sites.)
- The extent, timing and frequency of any activity will generally be consistent with low use times of the year to minimize conflicts with most recreational users.
- Conduct forest management activities at times that will have the least visual, noise and access conflicts with recreational use. Adjust management practices to minimize negative visual impacts on recreational uses.

Recreation Management Classification

CLEAR LAKE

AREA
22

Table 2.18 Area 22 - Clear Lake, Current and desired future conditions for community types in acres and percent of total.

Community type	Current		Desired Future Condition	
	Current Acres	Current % Cover	Acreage Objective	Future % Cover
Aspen	430	16%	400	15%
Forested Wetlands	60	2%	60	2%
Hemlock Hardwoods	122	5%	122	5%
Northern Hardwoods	634	24%	674	25%
Not Classified	147	6%	147	6%
Red and White pine	358	13%	462	17%
Red Oak	674	25%	600	23%
Unforested Wetlands	137	5%	137	5%
White Birch	97	4%	57	2%
TOTAL	2,659	100.00%	2,659	100.00%

Not Classified category contains 80 acres in campground and 67 acres in a utility Right of Way and picnic area.

RECREATION MANAGEMENT

Maintain the existing array of recreational facilities and expand or redevelop facilities within the area as described in the property-wide recreation management plan and consistent with the standards for a Type 4 Recreational Use Setting and modern campgrounds and dayuse areas in NR 44.07(7)(e)5b. Specific new developments or management actions include:

- Add 50 campsites at the Clear Lake campground
- Construct a modern 60 unit campground and a boat landing on the west shore of Carrol Lake.
- Convert the existing 19 site rustic Carrol Lake campground into a picnic area with beach access, swimming, and boat landing.
- Build a five mile hiking, backpacking and snowshoeing trail around Clear Lake.
- Close the Raven Trail to bicycles, maintain the trail for skiing/hiking.

